AMENDMENTS TO THE CLAIMS

Please delete claims 10, 12, 20 and 22 without prejudice. Please accept amended claims 1, 2, 5, 6, 8, 9, 11, 13, 16, 21, 23 and 28 as follows:

1.   (Currently Amended) A method for frame streaming using intelligent frame selection comprising the steps of:

~~ranking a plurality of frames according to a plurality of priorities; and~~

determining a time of transmission, wherein the time of transmission is a time for a frame to reach a receiving client;

selecting, during a run-time, a first frame for transmission over a network to ~~a~~ the receiving client~~, wherein selecting the frame comprises determining~~ according to a time-stamp of the first frame, ~~a~~ the time of transmission and a current time of the receiving client, wherein the time-stamp of the first frame is less than or equal to the current time of the receiving client plus the time of transmission ~~time of transmission is the time the frame will take to reach the receiving client~~; and

discarding, during a run-time, a second frame without transmission over the network to the receiving client according to a time-stamp of the second frame, the time of transmission and the current time of the receiving client, wherein the time-stamp of the second frame is greater than the current time of the receiving client plus the time of transmission.

2.   (Currently Amended) The method of claim 1, further comprising the steps of:

determining a priority of each frame, comprising,

determining a priority one frame according to a position in the video; and

determining a priority two frame according to dynamic information in the video.

3.   (Original) The method of claim 2, wherein dynamic information comprises one of visual effects, camera motion, and object motion.

4.   (Original) The method of claim 1, wherein frames are ranked according to semantic information.

5.   (Currently Amended) The method of claim ~~1~~ 4, wherein semantic information is determined according to a table of contents.

6.   (Currently Amended) The method of claim 1, wherein the step of selecting further comprises the steps of:

determining ~~the frame's~~ a rank of each frame;

determining a bandwidth over the network; and

determining ~~a~~ the current time.

7.   (Original) The method of claim 1, further comprising the step of determining a round-trip-time.

8.   (Currently Amended) The method of claim 1, wherein the receiving client and a sending client exchange packets comprising a timestamp <u>of each frame transmitted</u>.

9.   (Currently Amended) The method of claim 1, further comprising the step of determining ~~a time to send~~ <u>the time of transmission of each frame</u> according to a perceived bandwidth of the network.

10.   (Cancelled)

11.   (Currently Amended) A method for frame streaming using intelligent frame selection comprising the steps of:

determining ~~whether~~ a first frame ~~is~~ in a queue;

determining a ~~first~~ priority of the first frame;

determining whether the first frame can ~~be transmitted to~~ <u>arrive at</u> a client <u>considering a time stamp of the first frame, a time of transmission and a current time of the client</u>;

determining whether a next frame ~~of the first~~ <u>having a higher</u> priority <u>than the first frame</u>, whose timestamp is greater than ~~a currently considered~~ <u>the first</u> frame ~~of a second priority~~, can arrive at the client <u>considering a time stamp of the next frame, the time of transmission and a current time of the client</u> ~~after~~ <u>if</u> the ~~currently considered~~ <u>first</u> frame ~~of the second priority~~ is sent; and

upon determining that the next frame can arrive, sending the first frame.

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12.   (Cancelled)

13.   (Currently Amended) The method of claim 11, further comprising the step of determining, recursively, whether each frame of ~~the~~ a second priority can be transmitted to the client, until ~~frames~~ a frame of ~~the first~~ a higher priority ~~are~~ is sent according to timestamps, or no frames of the second priority with timestamps smaller than the timestamp of the next frame of the ~~first~~ higher priority are in the queue.

14.   (Original) The method of claim 11, wherein, within the queue, frames are sorted according to timestamps.

15.   (Original) The method of claim 14, wherein the top frame of a queue is that frame, which has currently the lowest timestamp, compared to other frames in the queue.

16.   (Currently Amended) A method for frame streaming using intelligent frame selection comprising the steps of:

        sorting a plurality of frames, according to timestamps, within a queue, wherein frames have one of two or more priorities; and

        determining whether a top frame of the queue is sent to a client according to a latest start time of the frame and respective time stamps of a next frame of a later timestamp and a higher priority.

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17.   (Original) The method of claim 16, wherein the top frame of the queue is that frame, which has currently the lowest timestamp, compared to all the other frames that are still in the queue.

18.   (Original) The method of claim 16, further comprising the step of adjusting, recursively, a value of a latest start time to the next first priority frame, such that all N-1 following first priority frames arrive at the client.

19.   (Original) The method of claim 16, wherein the step of determining whether the top frame is to be sent further comprises the step of determining a duration of transmission of the frame.

20.   (Cancelled)

21.   (Currently Amended) A method for selecting a ranked frame from a plurality of ranked frames to send to a client comprising the steps of:

    determining a rank for a frame of in a queue of frames; and

    processing the frame according to its rank and a latest start time of a next frame comprising,

    determining whether the frame can arrive at a client in time, depending on a frame timestamp, an expected available bandwidth and a current time of the client, and

determining whether a next higher priority frame can arrive at the client in time, if the frame is sent to the client, wherein the frame is discarded if the next higher priority frame cannot arrive at the client in time if the frame is sent.

22. (Cancelled)

23. (Currently Amended) The method of claim ~~22~~ 21, wherein the step of determining whether the next higher priority frame can arrive at the client in time is repeated from each queue of frames having a higher priority than the frame.

24. (Original) A system for content streaming using intelligent frame selection comprising:

an automatic content analysis module for selecting a key-frame and ranking the key-frame according to a plurality of priorities; and

a streaming server for selecting a frame during a run-time to send to a client according to a time of transmission, wherein the time of transmission is the time the frame will take to reach the receiving client.

25. (Original) The system of claim 24, wherein the streaming server comprises:

a sorting module for sorting a plurality of frames, according to timestamps, within a queue, wherein frames have one of three or more priorities; and

a sending module for determining whether the top frame is to be sent to a client according to a latest start time of the frame.

26.   (Original) The system of claim 24, further comprising the streaming server further comprises:

a controller for maintaining a control link to a client player via which the player can send request and statistics information;

a server for delivering time-stamped frames; and

a video server for delivering an audio track.

27.   (Original) The system of claim 26, wherein the controller selects a server to transmit frames and controls the servers providing the frames.

28.   (Currently Amended) The system of claim 24, further comprising a client player, wherein the client player comprises:

a client controller accepts input commands and translates the commands into requests; and

at least one player for play back of streaming content. ~~It will not only.~~

29.   (Original) The system of claim 28, wherein the client controller collects network connection and playback performance statistical information.

30.   (Original) The system of claim 28, wherein the client controller maintains a control connection to a server controller through which requests and statistic information are sent.

31.   (Original) The system of claim 28, wherein the client player further comprises an audio/visual module for displaying content.